



FOOD SAFETY 101

Subject: Family and Consumer Sciences | Current: 2010 | Grade: 9-12

Day: 1 of 1

1 Purpose

To promote safe food handling during preparation, service and storage

2 Duration

50 Minutes

3 Objectives

At the conclusion of this lesson, students will be able to:

- Describe the scope of foodborne illness in the United States
- Describe four core food handling practices to reduce the risk of foodborne illness
- Identify foods most likely to be associated with foodborne illness

4 Standards Addressed

FAMILY AND CONSUMER SCIENCES

ADVANCED LIFE SCIENCES: FOODS

Students are acutely aware of safe food handling, hygiene, spoilage, and quality. This encompasses issues from temperature controls, species and structure of microbes, shelf-life, food poisoning, and the socio-economic impact of the food quality.

FS.2

FAMILY AND CONSUMER SCIENCES

ADVANCED FOOD AND NUTRITION

Students will evaluate factors that affect food safety and sanitation from production through consumption.

AFN.4

Indiana Department of Education. (n.d.). Indiana Standards and Resources: Family Consumer Sciences: Advanced Life Sciences: Foods and Nutrition. Retrieved from <http://dc.doe.in.gov/Standards/AcademicStandards/StandardSearch.aspx>



5

Vocabulary

----- Students will be able to use these terms:

- **Foodborne illness** – any illness resulting from eating contaminated food or drink, also called food poisoning
- **Potentially hazardous food** – any food that is able to support the rapid and progressive growth of disease-causing microorganisms
- **Cross-contamination** – indirect contamination (infection) of one food with disease-causing microorganisms from a contaminated (infected) food, often through non-food sources such as cutting boards, knives, hands or clothing.

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Materials

----- These materials will aide students with the lesson:

- One minute video clip of Alyssa Milano speaking on food safety - URL at end of lesson plan
- Partnership for Food Safety Education's website – www.fightbac.org

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Additional Resources

----- Additional resources include:

- Classroom computer with projector for viewing video
- Individual computers for students to access the website

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Methods & Procedures

----- The lesson plan's course is as follows:

A. Introduction

Play one minute video clip of Alyssa Milano speaking on food safety to introduce the topic - URL at end of lesson plan

Food safety? Is it hidden danger that needs to be addressed or another topic overblown by the media that is best ignored? Listen to the following facts from the Centers for Disease Control and Prevention (CDC) and decide for yourself.

- Every year in the United States, there are 76 million cases of foodborne illness that result from consuming contaminated food or drink.



- Of these, 325,000 require hospitalization and 5,000 result in death.
- The types of foods that cause foodborne illness are not exotic and rare; they are common foods most of us eat frequently, like hamburgers, eggs and fresh vegetables.

Although microorganisms that cause foodborne illness can be introduced at any point from the farm to the table, there are a few important steps that you, the consumer, can take to greatly reduce the risk of foodborne illness. Today's lesson covers these steps.

However, before we begin the lesson, we need to address the topic of potentially hazardous food. A potentially hazardous food is any food that is able to support the rapid and progressive growth of a disease-causing microorganism. Two very common types of potentially hazardous foods include raw or cooked foods that come from animals (e.g. baked chicken, raw eggs and uncooked fish) and cooked foods that come from plants (e.g. mashed potatoes, steamed rice and cooked pasta). Less common types of potentially hazardous foods are cut melons (e.g. watermelon and cantaloupe), raw seed sprouts (e.g. bean sprouts and alfalfa sprouts), and garlic-oil mixtures that do not have added acid.

B. Development

In small groups (2-4 individuals), students will access information related to safe food handling at - [Url at end of lesson plan](#).

Although students may browse the entire site, they should focus the majority of their time reading the sections entitled, "Clean," "Separate," "Cook," and "Chill." Students may find it helpful to take notes for use in the practice and independent practice activities.

C. Practice

Following review of the website, students will work in small groups (2-4 individuals) to describe safe food handling of a chicken breast, from arrival in the home to serving at a meal, emphasizing the 4 core handling practices.

D. Independent Practice

This assignment will be due at the next class meeting.

Students will research a recent outbreak of foodborne illness in the news. Although students may include additional information, the following information is required:

- News source
- Date of news report
- Number of individuals affected
- Food source



- Microorganism causing the illness
- Symptoms of illness
- How could this foodborne illness have been prevented?

E. Accommodations (Differentiated Instruction)

Students who have visual, mobile or hearing impairments may need adaptive computer software to assist with using the computer and accessing the websites for information. To extend the lesson, students may be asked to determine a specific event—Thanksgiving dinner, a picnic, open house-, generate a list of foods, and explain how each item should be properly handled to be sure guests do not get sick.

F. Checking for understanding

- Students will be asked to define foodborne illness in their own words
- Students will be asked to identify a favorite food that would be classified as a potentially hazardous food
- Students will be asked to give examples of cross-contamination of food

G. Closure

- Review terms
- Summarize safe food handling practices
- To learn more about careers in food safety, students may visit - URL at end of lesson plan.
- Assign independent practice

9 Evaluation

Students will be evaluated on the practice assignment as follows:

Student groups who provide at least one recommendation from each of the 4 core practices will receive full credit (e.g. prior to cooking, store chicken in refrigerator at 40 F or lower). The teacher will ask open-ended questions (i.e., how should the chicken be stored prior to cooking?) to assist students groups who are having difficulty completing the assignment. Following teacher assistance, student groups who are unable to provide at least 1 recommendation from each of the 4 core practices will receive no credit for the practice assignment.



Students who provide all requested information on a recent news report of a foodborne illness outbreak will receive full credit. Students who provide at 6, 5 or 4 requested fields will receive partial credit (85%, 70%, and 60% of total points possible, respectively). Students who fail to complete at least 4 of the requested fields will receive no credit for the independent practice assignment.

10 Teacher Reflection

----- To be completed by teacher following the lesson.

11 Media & Resources

----- Websites and Video provided throughout lesson plan:

- One minute video clip of Alyssa Milano speaking on food safety - http://www.youtube.com/watch?v=ZLB0D-S7qeM&eurl=http%3A%2F%2Fvideo%2Egoogle%2Ecom%2Fvideosearch%3Fq%3Dfood%2Bsafety%26hl%3Den%26emb%3D0%26aq%3Df&feature=player_embedded
- Centers for Disease Control and Prevention website for foodborne illness - http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodborneinfections_g.htm#riskiestfoodsvvvvvv
- Partnership for Food Safety Education's website – www.fightbac.org
- <http://www.fightbac.org/content/view/6/11/>
- <http://www.explorehealthcareers.org/en/Career.131.aspx>

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